Before the

FEDERAL COMMUNICATIONS COMMISSION
Washington, DC. 20554

In the Matter of	)	
	)	
Commission Seeks Public	)	**ET Docket No. 02-135**
Comment on Spectrum Policy	)	
Task Force Report	)	
	)	
	)	

To: The Commission

Comments from Nickolaus E. Leggett, Wesle Annemarie Dymoke, and Kyle Drake

The following are comments on the FCC Spectrum Policy Task Force Report from Nickolaus E. Leggett, Wesle Annemarie Dymoke, and Kyle Drake. These comments are focused on the spectrum usage models presented by the FCC Spectrum Policy Task Force Report.

Scope of the Report

The Spectrum Policy Task Force Report has a strong emphasis on economics and economic efficiency. Unfortunately the Report does not have a similar strong emphasis on the social and political process impacts of spectrum allocations. These comments are an attempt to correct that imbalance.

Allocation Models

The Spectrum Policy Task Force Report identifies three models for allocating electromagnetic spectrum to uses and users:

- Command and Control – the traditional methods of spectrum allocation
- Exclusive Use – transferable rights similar to private property
- Commons – open access to unlimited numbers of unlicensed devices

While these models are interesting, they are not a complete summary of the options available for spectrum allocation. There are additional models that can be used such as the following:

- Lottery-driven allocation – successful applicants for spectrum resources selected by a lottery mechanism
- "Homestead Act" allocation – applicants earn a specified band of spectrum by using it consistently for a given period of time
- Citizens' rights allocation – each citizen in the political system is assigned a specified frequency band which he or she may use or lease to others

Comments on Allocation Models

The Report suggests that the traditional Command and Control model is an outdated approach that should be replaced as much as possible. This is a strong suggestion that is not supported by actual evidence. Clearly we could continue to use the Command and Control model to allocate radio waves for the next several centuries if we wish to. The suggestion that the alternative models are better is a political choice producing consequences that may or may not actually be better.

Exclusive Use Allocation

Establishing property rights in spectrum would bias spectrum usage towards the richest and largest entities. This would occur because these giant entities would have the funds to purchase spectrum either through auctions or an open market. The giant organizations would be able to bid up the price of the spectrum resource to obtain it at the expense of smaller entities that would not have the financial power to compete. The individual entrepreneur would be completely shut out of this spectrum market. Even in a

secondary resale market, the individual entrepreneur would not have a chance compared to the large corporations.

Shutting the individual and the small mom-and-pop organization out of the spectrum will have highly unfavorable political consequences. American support for private property is historically based on the idea that everyone can own some property. Some people may own a bicycle, others own modest cars, and some own Rolls-Royces. The type of the property varies, but everyone has the opportunity to own some property. Similarly, in the real estate world some own quarter-acre plots and others own thousand acre ranches. But everyone has the opportunity to own some sort of real estate. However, in the future world of Exclusive Use spectrum many people would be shut out of "owning" and using spectrum. This raises the question of the future legitimacy of Exclusive Use spectrum allocations.

In addition, there may be a Constitutional problem with Exclusive Use spectrum. As pointed out by attorney Donald J. Schellhardt, the 14th Amendment of the U.S. Constitution may bar the establishment of a spectrum allocation system that does not provide equal protection of the law. Certainly there is a legitimate Constitutional question about an allocation system that strongly favors the richest corporations. Similar questions apply to the current FCC auctions.

Commons Allocation

The Commons allocation system is much more appealing to the basic American spirit. The Commons system is like the Interstate highway system where everyone can jump in a car and drive where they want.

The current dominant example of the Commons approach is Wi-Fi wireless networking where anyone who has the appropriate computer card can network with neighboring units. Earlier historical examples of Commons-type approaches are present in the Citizens Band channels, Amateur Radio bands, and Marine Band boaters' channels.

The Commons approach to allocation can provide a community pathway for neighborhood broadcasting and community-building efforts. This is a great improvement over the Exclusive Use approach. The Commons systems currently contemplated are short-range Part 15 type devices. However, these devices can be chained together in various ways to cover a neighborhood or a larger community. The Commons should include specific provisions for neighborhood and community broadcasting. A possible approach to local broadcasting would be to have distributor "lighthouses" that would transfer packets of program material to receivers by means of rotating millimeter wave radio beams. These packets of material would be buffered by the broadcast receivers and played out to the users.

The Commission should support generous Commons frequency bands for both community networking and broadcasting. This should include opportunities for local entrepreneurs and advertisers to provide community services.

Lottery – driven Allocation

Using a lottery to distribute a currently scarce resource is an effective method for enabling many different applicants large and small to compete for frequency resources. This is an alternative to the Exclusive Use allocation method. It avoids some of the economic class bias problems that the Exclusive Use marketplace would have. Smaller

entities and even individuals would have some chance to prevail in a lottery allocation system. Potential Constitutional challenges would be less than under the Exclusive Use system. The lottery option is worth considerable study.

Homestead Act Allocation

In American history, the Homestead Act allowed applicants to earn a small farm by working a plot of land continuously for several years. This homesteading approach would allow an applicant to claim a limited portion of spectrum by working that spectrum for a specified period of time. This approach would allow the mom-and-pop broadcaster or networker to set up a communications business and earn appropriate spectrum rights for that business. In this approach, individuals would have a reasonable chance to succeed in the communications and broadcasting markets.

Citizens' Rights Allocation

Another approach that would benefit the regular citizen would be to allocate a slice of spectrum to each citizen when he or she is born. The citizen would have the opportunity to use his spectrum band or he could lease it out through a spectrum-clearing house. On his death, the spectrum could be returned to a public pool for assignment to another new citizen. This approach certainly eliminates the economic class bias problems of some of the other methods of allocation. Also, it has the additional appeal of providing a little nest egg to each citizen from birth on. If the spectrum slices prove to be valuable enough, this nest egg may reduce the need for other economic safety nets such as welfare.

Command and Control Allocation

The "old-fashioned" Command and Control allocation method is maligned in the Spectrum Policy Task Force Report. However, this type of allocation is well understood around the World. This allocation method is well suited for non-economic services such as radio astronomy, amateur radio, air navigation, public service radio, and non-commercial broadcasting. We must remember that there are many values in our political system that are not economic. We cannot act as if economics is the only value that can be considered in spectrum allocation decisions. Many of the non-economic public service and common good values are central to America and its healthy future.

The Commission can introduce new common good services in the future. For example, an Inventors' and Experimenters' radio service can be allocated spectrum for the express purpose of developing new communications and RF power inventions.

Stepping Into the Future

As we design new spectrum allocation systems, we are basically designing the future of America. We need to be sure that we do not narrow the discussion to just a few allocation methods when we can see that other methods may be more attractive choices.

Requested Action

The Commission should conduct additional rigorous study of allocation methods, options, and mixes that would effectively serve America and the World in the future. It is too early to initiate rulemaking proceedings replacing the traditional Command and Control method of frequency allocation.

Respectfully submitted,

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